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UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

LEIGHTON TECHNOLOGIES LLC,)
)
Plaintiff and Counterclaim Defendant,)
)
vs.)
)
OBERTHUR CARD SYSTEMS, S.A.,)
)
Defendant and Counterclaim Plaintiff.)

04 Civ. 02496 (CM)(LMS)

**DECLARATION OF
BARRY R. MOSTELLER**

I, Barry Mosteller, affirm under penalty of perjury, as follows:

1. I am a Director of Product Development for Oberthur Card Systems in Exton, PA ("Exton facility"). I submit this declaration in support of the Defendant's Summary Judgment Motion for Invalidity. The information set forth herein is based on my personal knowledge or, to the extent that I do not have personal knowledge, is true to the best of my knowledge and belief.

2. I have been employed at the Exton facility since January 16, 1993.

3. Ownership of the Exton facility has changed hands several times since my employment began: Norton Opax from January 16, 1993 until June 1993, Bowater PLC from June 1993 until August 1995, De La Rue from August 1995 until October 1999 and Oberthur Card Systems from October 1999 to present.

4. Since January 16, 1993, I have supervised and at times participated in the manufacturing of approximately 800 million conventional magnetic stripe laminated plastic cards at the Exton facility. I also have developed and qualified for production approximately 10 million contact cards since 1999 and approximately 1.5 million contactless cards since 2002.

5. From January 16, 1993 to the end of 1998 my job title was Second Shift Supervisor. A principal job responsibility of mine was supervising all card production during my shift including lamination and the operation of two 4-daylight Burkle lamination presses.

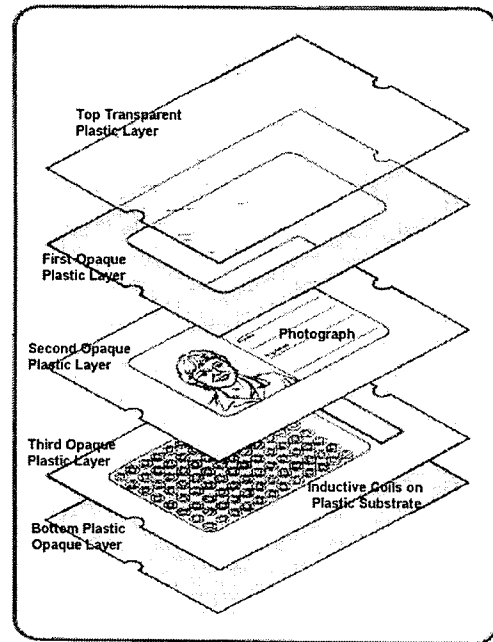
6. From the end of 1998 to the present my title changed several times, including Smart Card Engineer, Smart Card Manager and Director of Production Projects. A principal job responsibility of mine during this time was the development and day-to-day production of plastic laminated cards, including contactless cards, in the Exton facility.

7. Based upon the forgoing experience during the years 1995 through today, a person who had ordinary skill in developing laminated plastic cards, including determining card structure and lamination cycle parameters, had a college degree, preferably one in material science, chemistry or mechanical engineering, and two years of practical experience or alternatively had four years of practical experience in laminated plastic card development.

8. Oberthur's attorneys asked me to review the 1987 Oakwood Series 6 Laminators brochure ("1987 Series 6 brochure"), a copy of which is annexed as Exhibit

A. On the fourth page of that brochure there appears an illustration labeled “Card set for machine reading application”. They asked me to state what that illustration showed.

9. A copy of that illustration is reproduced in the right margin with labels added for ease of description. I recognize the illustration as a partial exploded view of what the 1987 Series 6 brochure terms a card set for a machine readable card. The top layer is a transparent plastic layer. Its transparency is obvious; the layer below the top layer is clearly visible through the top layer.



Card set for machine reading application.

10. Below the top transparent plastic layer is an opaque plastic layer having a cutout. The next plastic layer is a second opaque plastic layer that has a white color. Sitting on top of that layer is a photograph. I recognize that that photograph has a substantial thickness because of the cutout in the first opaque plastic layer. That cutout is sized so as to accept the photograph. When the layers in the illustration are compressed into an assembled card the first opaque layer and the photograph essentially form a single layer. Accordingly, the thickness of the first opaque plastic layer is approximately the same as the thickness of the photograph and together effectively form one layer of substantially uniform height that creates a flat surface across the card. If the photograph was merely printed on the second opaque plastic layer, when the card set was laminated, the cutout would create a large unsightly void in and an uneven surface on the laminated card.

11. The next layer in the exploded view comprises what are labeled “third opaque plastic layer” and “inductive coils on plastic substrate”. Because this layer is covered on both sides by opaque plastic layers, the patterns and lines on it cannot serve an aesthetic function. Accordingly, those patterns and lines serve to denote functional features. Since the legend on the illustration indicates that the card is machine readable, the pattern of coils presumably are machine readable and encode information that the card carries.

12. The text on the same page as that illustration provides further information as to the structure and function of that pattern of coils. In pertinent part that text states, “By inserting specialist coating either on the surface or into the core structure, the plastic card represents an ideal carrier used increasingly to identify a person to a computerized system in today’s world of hi-technology. Cards for many machine reading applications have already been designed by Oakwood. These include applications for varying types of ... inductive codings” This passage teaches that the coils are metallic coatings that function as inductive codings.

13. The brochure also teaches microchips can be embedded and laminated into the core: “Oakwood technicians are skilled in the use of PVC ... and have packaged the most sophisticated micro chips within the core structure of a card”.

14. In determining the structure of the layer having the inductive coils I first recognized that the circular patterns on the layer were surrounded by a line forming a rectangular box. Because this layer is covered on both sides by opaque plastic layers, the line forming the rectangular box cannot serve an aesthetic function. Instead, that line tells me that this layer sits within a cutout in the third opaque plastic layer. If the third

opaque plastic layer did not have a cutout and therefore the substrate having the inductive coils sat on top of the third opaque plastic layer, the card would not be flat. The photograph sitting within a cutout of the first opaque plastic layer proves that flatness was a concern.

15. For the laminated card to be as flat and smooth as possible, the thickness of the inductive codings and its underlying substrate should be substantially the same thickness as the third opaque plastic layer. To accomplish this goal the bottom surface of the third opaque plastic layer would be level with the bottom surface of the plastic substrate and the top of the third opaque plastic layer should be as close to, but not higher than, the top of the coils. Accordingly, when assembled the card is substantially flat across its surface.

16. The 1987 Series 6 brochure indicates that the card is machine readable. Accordingly, from the information in that brochure and based upon my experience, I deduce that when the card is brought into close proximity with a reader the coils in the card add an inductive element into the reader's electrical circuit. Depending on the pattern and physical attributes of the coils, the induction varies and the reader decodes the information encoded on the machine readable card.

17. Since the bottom layer has the same shading as the first opaque plastic layer, I conclude that that layer is yet another opaque plastic layer.

18. Oberthur's attorneys also asked me to review a 1987 Oakwood sales brochure entitled "Lamination Presses for Bank Card & Printed Circuit Board Production" ("1987 sales brochure"), a copy of which is annexed as Exhibit B. On the sixth page of that brochure there appears a diagram that shows "Typical Lamination

Cycles". The diagram illustrates temperature versus pressure curves for plastic (P.V.C.) laminated cards and printed circuit boards ("P.C.B."). They asked me to interpret the P.V.C. curves in this diagram.

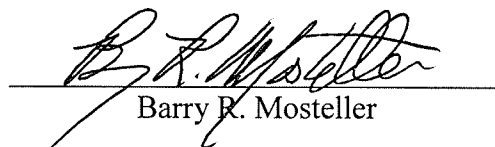
19. The diagram clearly shows a pressure ("P.V.C. Press") during the cooling cycle ("P.V.C. Temp") that is approximately twice the pressure during the heating cycle. That diagram represents a typical lamination cycle for all the plastic card laminators described and illustrated in the 1987 sales brochure, including the Series 6 laminator.

20. Similarly, we generally operate our lamination presses with a maximum cooling pressure that is approximately 100% greater than a heating pressure. Indeed, I do not recall a single instance during my entire employment at the Exton facility when our lamination presses were specified to operate with the maximum cooling pressure being less than 10% greater than the heating pressure when running customer jobs for laminated plastic cards, including contactless cards.

21. The thickness of card layers, such as the second opaque plastic layer and the plastic substrate, is a matter of design choice and the specific thickness of a card layer selected for a card construction is determined through routine experimentation.

22. The temperature of a platen is a matter of design choice and the specific temperature selected for a lamination process is determined by the particular plastic and lamination cycle time through routine experimentation.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed on October 17, 2005.


Barry R. Mosteller